



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,837	12/28/2000	Nobuyuki Yamauchi	44471/251413	1028
7590	06/04/2004		EXAMINER	
ROGER T. FROST KILPATRICK STOCKTON LLP 2400 Monarch Tower 3424 Peachtree Road, N.E. Atlanta, GA 30326			LE, DIEU MINH T	
			ART UNIT	PAPER NUMBER
			2114	7
DATE MAILED: 06/04/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/752,837	YAMAUCHI ET AL.
	Examiner	Art Unit
	Dieu-Minh Le	2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 April 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,3-6,8-10,12 and 13 is/are rejected.

7) Claim(s) 2,7 and 11 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 December 2000 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. This is in response to an election of claims in a Restriction Requirement filed on April 30, 2004.

Applicants elected claims 1-13 to be prosecuted in the present application. Claims 14-20 are withdrawn from further consideration as being directed to non-elected inventions.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2114

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-6, 8-10, 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable of Shapiro (U.S. Patent 5,522,036) in view of Suzuki et al. (US Patent 4,984,239 hereafter referred to as Suzuki).

As per claim 1:

Shapiro explicitly teaches:

- an information processing apparatus [abstract, fig. 24, col. 1, lines 15-18 and col. 6, lines 14-17]
comprising:

Art Unit: 2114

- user interface means for displaying [fig. 24, col. 7, lines 44-52] an operation state [col. 15, lines 2-21] of a program to a user in a time-series manner based on program [col. 3, lines 57-67] execution history information [col. 7, lines 44-49], and for receiving a portion of a defect pointed out by the user in the displayed operation state [col. 3, lines 56 through col. 4, lines 20];
- operation analysis means for analyzing a cause of the defect (i.e., cause-effect relationship [col. 14, lines 55-62] and analyzing failure and faults [col. 3, lines 56-67] and a solution for solving the cause of the defect [col. 13, lines 37-42];
- user interface means displays defect of the cause, solution, and the regenerated operation state to the user [fig. 8a, col. 7, lines 49-51 [col. 6, par. 0064].

Shapiro does not explicitly teach:

- regenerates operation state on which solution is reflect.

However, Shapiro does disclose capability of:

Art Unit: 2114

- A method and apparatus for the analysis of a computer process [abstract, fig. 8A, col. 1, lines 15-18] comprising:

- state change and direction execution for its solution within the debugging and analysis program [col. 15, lines 3-25].

In addition, Suzuki disclosed capability of:

- An automatic verification system for a maintenance/diagnosis in a computer system [abstract, col. 1, lines 8-14] comprising:

- display error message [fig. 5];
- fault cause analysis/processing [col. 2, lines 57-65];

- a fault recovery processing (i.e., solution for defect detection and correction) [col. 2, lines 34-35] and;

- construction for fault detection [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Suzuki's a fault recovery processing (i.e., solution for defect detection and correction) and

construction for fault detection capability in **conjunction** with the Shapiro's state change and direction execution for its solution within the debugging and analysis program in order to enhance performance of the real-time information program operating system. One of ordinary skill in the art would have been motivated to do so to improve the data access to and from memory and to ensure data error detected and corrected within application program development. In addition, any error occurred in data computing system can be identified, detected, corrected via error correction/debugger capability in providing data high reliability, availability, and flexibility environment which eventually will increase its performance, such as data throughput between internal and external devices.

As per claims 3-4:

Shapiro further explicitly teaches:

- information processing apparatus [abstract, fig. 24, col. 1, lines 15-18 and col. 6, lines 14-17] has program function correspondence information for specifying solution (i.e., comparing information) [col. 15, lines 2-67];

Art Unit: 2114

- user interface means uniquely identifying the designated portion by allowing the user to designate the portion of the defect by coordinate position [col. 15, lines 48-67].

As per claim 5:

Shapiro further explicitly teaches:

- information processing apparatus [abstract, fig. 24, col. 1, lines 15-18 and col. 6, lines 14-17] automatically generates a program skeleton (i.e., source code) satisfying an original specification based on solution and execution history information [fig. 8A, col. 27, lines 31 through col. 28, line 7, col. 32, lines 10-20].

As per claims 6, 8-9:

These claims are the same as per claims 1, 3-5. The only minor different is that this claim is directed to a **recording medium** having a defect analysis program instead of the information processing apparatus having defect in operation as described in claims 1, 3-5. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to realized that the

Art Unit: 2114

recording medium is a necessary item for such information processing system, more specifically, information processing apparatus, defect analysis program, defect analysis method, and application program development assistance system. Since the defect analysis program or system obviously needs a means for instruction or code means resided within the recording medium for performing the data storing, error detection and correction, data receiving, transmitting operation via the user interface capability. Therefore, this claim is also rejected under the same rationale applied against claims 1, 3-5.

As per claims 10, 12-13:

Due to the similarity of claims 10, 12-13 to claims 1, 3-5 except for a defect analysis method comprising displaying steps, analysis steps, regenerating steps, etc... instead of an information processing apparatus comprising displaying means, analysis means, regenerating means, etc...; therefore, these claims are also rejected under the same rationale applied against claims 1, 3-5. In addition, all of the limitations have been noted in the rejection as per claims 1, 3-5.

Art Unit: 2114

5. Claims 2, 7, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. A shortened statutory period for response to this action is set to expire THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703)305-9408. The examiner can normally be reached on Monday - Thursday from 8:30 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703)305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2114

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114**

DML
6/1/04